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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,277	07/14/2000	KLAUS-DIETER HAMMER	051009/0125	1514

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EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/600,277

Applicant(s)

HAMMER ET AL.

Examiner

Catherine Simone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 8, 2003 has been entered.

Withdrawn Rejections

2. The 35 U.S.C. 103 rejections of claims 13, 17-30 and 35-41 over Hammer et al. in view of Pophusen et al. of record in the Office Action mailed 4/7/03, Pages 2-4, Paragraph #2 has been withdrawn due to the Applicant's amendment filed 9/8/03.

3. The 35 U.S.C. 103 rejections of claims 14-16 over Hammer et al. in view of Bengs et al. of record in the Office Action mailed 4/7/03, Page 4, Paragraph #3 has been withdrawn due to the Applicant's amendment filed 9/8/03.

4. The 35 U.S.C. 103 rejections of claims 31-34 over Hammer et al. in view of Andra et al. of record in the Office Action mailed 4/7/03, Pages 4-5, Paragraph #4 has been withdrawn due to the Applicant's amendment filed 9/8/03.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 13, 17-30 and 35-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer et al. (5,928,737) in view of Bastioli et al. (WO 92/19680).

Regarding **claims 13, 17 and 42-44**, Hammer et al. discloses a seamless, tubular food casing which is blown in an area ratio from 1:2 to 1:10 (see col. 2, lines 19-23), produced from a thermoplastic mixture which comprises a) thermoplastic starch (see col. 2, lines 16-18) and b) at least one other polymer (see col. 3, lines 49-54) wherein a weight ratio of a:b is in a range from 90:10 to 10:90 (see col. 3, lines 54-56). However, Hammer et al. fails to disclose the at least one other polymer consisting of a homo- or copolymer comprising hydroxycarboxylic acid units. Bastioli et al. teaches that it is old and well-known in the art to have a starch mixed with hydroxycarboxylic acid units (see pages 2-3) for the purpose of producing a film with a high biodegradation rate and having improved mechanical properties and/or improved resistance to water and improved low permeability to water vapour. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the thermoplastic mixture in Hammer et al. with a polymer consisting of a homo- or copolymer comprising hydroxycarboxylic acid units as suggested by Bastioli et al. in order to produce a food casing with a high biodegradation rate, improved mechanical properties, improved resistance to water and improved low permeability to water vapour. Regarding **claims 18 and 19**, the weight ratio a:b appears to be in the range from 20:80 to 80:20 and in the range 40:60 to 60:40 (see col. 3, lines 54-56). Regarding **claim 20 and 21**, note plasticizer (see col. 3, lines 1-4) and a weight percent being up to 30% (see col. 3, lines 8-19). Regarding **claim 22**, note the proportion of plasticizer present in the thermoplastic mixture is up to 15% by weight (see col. 3, lines 8-19). Regarding **claim 23 and 24**, note one lubricant (see col. 3, lines 64-67) and a

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weight percent being up to 12% (see col. 4, lines 3-5). Regarding **claims 25 and 26**, note the proportion of lubricant present in the thermoplastic mixture is from 2 to 6% by weight based on the total weight of the thermoplastic mixture (see col. 4, lines 3-5). Regarding **claim 27 and 28**, note the thermoplastic mixture is mixed with fibers (see col. 3, lines 42-45) and a weight percent being up to 25% (see col. 3, lines 44-47). Regarding **claims 29 and 30**, note the proportion of fibers present in the mixture is from 2 to 15% by weight based on the total weight of the mixture (see col. 3, lines 44-47). Regarding **claims 35 and 36**, note crosslinker (see col. 3, lines 60-63) and a weight percent being up to 20% (see col. 3, lines 34-36 and 58-61). Regarding **claims 37 and 38**, note the crosslinker present in the thermoplastic mixture is from 0.5 to 10% by weight based on the total weight of the mixture (see col. 3, lines 58-61). Regarding **claim 39**, note the food casing is provided with an internal preparation and/or external preparation (see col. 41-44). Regarding **claim 41**, the food casing of Hammer et al. is used as a synthetic sausage casing (see col. 1, lines 35-36).

In regard to **claim 40**, it is a process limitation and process limitations are given little or no patentable weight. The method of forming the product is not germane to the issue of patentability of the product itself. MPEP 2113. In this case, the limitation "extruding the thermoplastic mixture through an annular die and blowing it in an area ratio of from 1:2 to 1:10" is a method of production and therefore does not determine the patentability of the product itself.

7. **Claims 14-16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer et al. (5,928,737) in view of Bastioli et al (WO 92/19680) and in view of Bengs et al. (6,406,530).

Hammer et al. in view of Bastioli et al. discloses the claimed invention as shown above except for a starch ester comprising a starch acetate. Bengs et al. teaches it is old and well-known in the art to have a starch ester comprising a starch acetate (see col. 6, lines 8-13) mixed with a biodegradable polymer for the purpose of producing a biodegradable film with improved mechanical

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properties. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the starch in Hammer et al. to be a starch ester comprising a starch acetate as suggested by Bengs et al. in order to form a biodegradable food casing with improved mechanical properties.

8. **Claims 31-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer et al. (5,928,737) in view Bastioli et al. (WO 92/19680) and in view of Buehler et al. (5,346,936).

Hammer et al. in view of Bastioli et al. discloses the claimed invention as shown above except for fillers present in the thermoplastic mixture up to 12% by weight based on the total weight of the mixture. Buehler et al. teaches that it is old and well-known in the art to have fillers present up to 12% by weight based on the total weight of the mixture (see col. 4, lines 15-19) for the purpose of producing a biodegradable starch/polymer mixture having a long shelf life in granular form and is resistant to moisture. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have provided the thermoplastic mixture in Hammer et al. with fillers of up to 12% by weight on the total weight of the thermoplastic mixture as suggested by Buehler et al. in order to produce a biodegradable food casing having a long shelf life in granular form and is resistant to moisture.

Response to Arguments


11. Applicant's arguments with respect to claims 13-44 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571)272-1501. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Catherine A. Simone
Examiner
Art Unit 1772
May 17, 2005


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 5/23/05